

| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
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| APPLICABLE STANDARD | | | | | | | | | |
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| RATING | OPERATING TEMPERATURE RANGE | -40 °C TO 85 °C | | STORAGE TEMPERATURE RANGE | -10°C TO 50°C (PACKED CONDITION) | | | | |
| | VOLTAGE | 50 V AC / DC | | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90% MAX (NOT DEWED) | | | | |
| | CURRENT | ※ 0.5 A | | APPLICABLE CABLE | t=0.3±0.05 , GOLD PLATED | | | | |

SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
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| CONSTRUCTION | | | | |
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | × | × |
| MARKING | CONFIRMED VISUALLY. | | × | × |

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| ELECTRIC CHARACTERISTICS | | | | |
| CONTACT RESISTANCE | 1 mA (DC OR 1000 Hz). | 50 mΩ MAX. INCLUDING FPC, FFC BULK RESISTANCE (L=8mm) | × | × |
| INSULATION RESISTANCE | 100 V DC. | 500 MΩ MIN. | × | × |
| VOLTAGE PROOF | 150 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | × | × |

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| MECHANICAL CHARACTERISTICS | | | | |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| VIBRATION | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 50 mΩ MAX. | × | — |
| SHOCK | 981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS. | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| FPC RETENSION FORCE | MEASURED BY APPLICABLE FPC. (CONNECTOR, FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.30mm) | DIRECTION OF INSERTION : 0.4 × n N MIN. (n : NUMBER OF CONTACTS) | × | — |

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| ENVIRONMENTAL CHARACTERISTICS | | | | |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -40 → +15 to +35 → +85 → +15 to +35 °C TIME 30 → 2 to 3 → 30 → 2 to 3 min. UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40 ± 2 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h. | | × | — |
| DAMP HEAT, CYCLIC | EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES, TOTAL 240 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DRY HEAT | EXPOSED AT 85 ± 2 °C, 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. | × | — |
| COLD | EXPOSED AT -40 ± 3 °C, 96 h. | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |

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| EMARKS | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | D.YAMADA 04.03.25 | T.MURAI 04.03.25 | R. Takayanagi 04.03.26 | M. Ishida 04.03.26 | |

Unless otherwise specified, refer to JIS C 5402.

Note QT: Qualification Test AT: Assurance Test ×: Applicable Test

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| HRS HIROSE ELECTRIC CO., LTD. | SPECIFICATION SHEET | PART NO. FH12A - * * S - 0.5SH (55) |
| CODE NO. (OLD) CL | DRAWING NO. ELC4 - 150722 - 51 | CODE NO. CL 586 |

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| SPECIFICATIONS | | | | |
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| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
| CORROSION SALT MIST | EXPOSED AT 35±2 °C, 5 % SALT WATER SPRAY FOR 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | × | — |
| SURPHUR DIOXIDE [JIS C 0090] | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5 % , 25±5 PPM FOR 96 h. | | × | — |
| HYDROGEN SULPHIDE [JIS C 0092] | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5 % , 10 TO 15 PPM FOR 96 h. | | × | — |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING (TO BE 2 TIMES MAX.) PEAK TMP. 250 °C MAX. REFLOW TMP. 230 °C MIN. FOR 30 sec. PRE-HEATING. 150 TO 200 °C 90 TO 120 sec. 2) SOLDERING IRONS : 350 ± 10 °C, FOR 5±1 sec. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 235 ± 5 °C, FOR IMMERSION DURATION, 2±0.5 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | — |

※ WHEN THE SAME VALUE OF CURRENT ARE APPLID TO ALL CONTACTS AT THE SAME TIME IN ONCE, SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.

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| | D.YAMADA 04.03.25 | T.MURAI 04.03.25 | <i>R. Takayama</i> 04.03.25 | <i>M. Ishida</i> 04.03.26 | |

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Note QT:Qualification Test AT:Assurance Test ×:Applicable Test

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| | | CODE NO.(OLD) | |
| CL | ELC4 - 150722 - 51 | CL 586 | 2 |

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